IN THE CLAIMS:

The claims as currently presented and under consideration, are presented below for the Examiner's convenience and to comply with 37 CFR §1.121. This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (currently amended) An isolated polypeptide ~~having cellobiohydrolase I activity, selected from the group consisting of~~

~~a) *H. grisea* CBH1.1 variant derived from CBS 225.63;~~

~~b) *H. grisea* CBH1.1 variant having the sequence given in Figure 3 (~~ comprising the amino acid sequence of SEQ ID NO:4. ~~SEQ ID NO:3);~~

~~c) *Hypocrea jecorina* CBH1 variant comprising at least one substitution selected from the group consisting of T55, S58, Q101, N250, P265 and L288 of the mature sequence; and~~

d) ~~*Scytalidium thermophilium* CBH1 (SEQ ID NO:11) derived from CBS 671.88.~~

2. (withdrawn) The polypeptide of Claim 1 wherein the *Hypocrea jecorina* CBH1 variant comprises a substitution at a position corresponding to one or more of T55E, T55K, S58T, Q101Y, Q101H, N250D, N250E, P265A, P265S and L288I.

3. (currently amended) The isolated polypeptide of Claim 1 further comprising a signal sequence.

4. (currently amended) ~~The~~ An isolated polypeptide ~~of Claim 3 comprising an *H. grisea* CBH1.1 variant having the sequence given in Figure 4 (SEQ ID NO:4).~~ comprising the amino acid sequence of SEQ ID NO:3.

5. (withdrawn) The polypeptide of Claim 3 comprising a *Scytalidium thermophilium* CBH1 (SEQ ID NO:9).

6. (withdrawn) A polynucleotide encoding a cellobiohydrolase selected from the group consisting of

a) *H. grisea* CBH1.1 variant derived from CBS 225.63;

b) *Hypocrea jecorina* CBH1 variant comprising at least one substitution selected from the group consisting of T55, S58, Q101, N250, P265 and L288 of the mature sequence; and

c) *Scytalidium thermophilium* CBH1 derived from CBS 671.88.

7. (withdrawn) A polynucleotide according to Claim 6, wherein the cellobiohydrolase is an *H. grisea* CBH1.1 variant is derived from CBS 225.63.

8. (withdrawn) A polynucleotide according to Claim 6, wherein the *H. grisea* CBH1.1 variant comprises SEQ ID NO:3.

9. (withdrawn) A polynucleotide according to Claim 6, wherein the *H. grisea* CBH1.1 variant comprises SEQ ID NO:4.

10. (withdrawn) A polynucleotide according to Claim 6, wherein the cellobiohydrolase is a *S. thermophilium* CBH1 comprising SEQ ID NO:9.

11. (withdrawn) A polynucleotide according to Claim 6, wherein the cellobiohydrolase is a *S. thermophilium* CBH1 comprising SEQ ID NO:11.

12. (withdrawn) A polynucleotide according to Claim 6, wherein the cellobiohydrolase is a *H. jecorina* CBH1 variant comprises a substitution at a position corresponding to one or more of T55E, T55K, S58T, Q101Y, Q101H, N250D, N250E, P265A, P265S and L288I of SEQ ID NO:10.

13. (withdrawn) A nucleic acid construct comprising a nucleotide sequence according to claim 6, operably linked to one or more control sequences.

14. (withdrawn) A recombinant expression vector comprising the nucleic acid construct of Claim 13.

15. (withdrawn) A recombinant host cell comprising the nucleic acid construct of Claim 14.

16. (withdrawn) A method for producing a CBH1 polypeptide, said method comprising:

a) transforming a host cell with a nucleic acid comprising a polynucleotide according to Claim 6;

b) culturing the host cell under conditions to produce the polypeptide; and

c) recovering the polypeptide.

17. (currently amended) A non-naturally occurring composition comprising ~~a polypeptide having cellobiohydrolase I activity according to claim 1.~~ the amino acid sequence of SEQ ID NO:4.

18. (withdrawn) A method of converting biomass to sugars comprising contacting the biomass with a polypeptide having cellobiohydrolase I activity wherein said polypeptide has enhanced activity relative to *T. reesei* in either a PCS conversion assay 65°C or a PASC assay at 38°C.

19. (withdrawn) A method of converting biomass to sugars comprising contacting said biomass with a polypeptide having cellobiohydrolase I activity according to claim 1.

20. (New) The composition of claim 17, further comprising a cellulosic feedstock.

21. (New) The composition of claim 20, further comprising a fermentative organism.

22. (New) A feed additive comprising the amino acid sequence of SEQ ID NO:4.

23. (New) A detergent comprising the amino acid sequence of SEQ ID NO:4.